

Figure 1A

1 gatategcca ccatggatgc aatgaagaga ggctctgct gtgtgctgct gctgtgtgga
 m d a m k r g l c c v l l l c g
 61 gcagctcttcg ttctgccag cagcgtggg ccaactgtgc ccgacagaga caatgatgga
 a v f v s p s s a g p t v p d r d n d g
 121 atccctgata gtctagaggt tggaggatgc acggttagatg tcaagaacaa aaggactttt
 i p d s l e v e g y t v d v k n k r t f
 181 ctctgcctt ggatctcaaa tatccatgag aagaaggggc ttaccaagta caagtctctc
 l s p w i s n i h e k k g l t k y k s s
 241 cccgagaagt ggtctaccgc ttccgatcca tatagcgatt tcgagaagggt cacaggccgg
 p e k w s t a s d p y s d f e k v t g r
 301 atcgataaaa atgtgtctcc agaggctaga cccccctgg tagcagccta cccgattgta
 i d k n v s p e a r h p l v a a y p i v
 361 cactgtggaca tggagaacat cattctaagc aaaaacgagg accagctccac acaaacact
 h v d m e n i i l s k n e d q s t q n t
 421 gactccgaga cccgcaccat atctaaaaac accagtaactt caaggcccca cactctgaa
 d s e t r t i s k n t s t s r t h t s a
 481 gtgcacggca atcggaagt ccatgcatcg tttttcgata ttggtggctc cgtgtcagcc
 v h g n a e v h a s f f d i g g s v s a
 541 ggcttttagca atagcaactc ctgcacgggt gccattgacc actcactgtc attagcaggt
 g f s n s n s s t v a i d h s l s l a g
 601 gagaggactt gggctgaaac tatgggtctg aatacgcgcg atacggcccg gctcaacgca
 e r t w a e t m g l n t a d t a r l n a
 661 aatatctgggt acgtcaacac agggactgct cctatatata acgtgtgtgc tacgacaagt
 n i r y v n t g t a p i y n v l p t t s
 721 cttgtctctg gcaaaaatca gaccctcgca accattaagg caaagggaaa tcagctgagc
 l v l g k n q t l a t i k a k e n q l s
 781 cagatctctg cccctaacaa ctattatcca tccaaaaatt tagcccccac agccctgaac
 q i l a p n n y y p s k n l a p i a l n
 841 gccaggagc acttttctc tacccccata actatgaatt acaatcagtt cctggagctg
 a q d d f s s t p i t m n y n q f l e l
 901 gaaaagacga agcagctgag actagacacc gatcaggtgt atggaaacat agcgacatat
 e k t k q l r l d t d q v y g n i a t y
 961 aactttgaga acggccgcgt gcgcgtcgac actgggtcaa actggtctga agttctgccg
 n f e n g r v r v d t g s n w s e v l p
 1021 caaattcaag agacaaccgc cagaattatc tttaatggga aggacttgaa cctgtctgaa
 q i q e t t a r i i f n g k d l n l v e

Figure 1B

1081 cgtagaattg ccgcctgaa cccagtgat ccaactcgaga cgactaaacc ggatatgaca
r r i a a v n p s d p l e t t k p d m t

1141 ctgaaagagg ctctgaagat tgccttcgga ttcaacgaac ctaatggcaa ttgcagtat
l k e a l k i a f g f n e p n g n l q y

1201 caggggaaag acatcacaga gtttgatttc aatttcgatc agcagacttc ccaaaatatic
q g k d i t e f d f n f d q q t s q n i

1261 aaaaatcagt tggcagagct gaatgccacc aatatctaca cggttctcga taaaatcaaa
k n q l a e l n a t n i y t v l d k i k

1321 cttaacgcca agatgaacat attgattcga gacaaacgct tccactacga ccgcaacaat
l n a k m n i l i r d k r f h y d r n n

1381 atagccgtag gcgctgatga gtctgtcgtc aaggaggctc atagggaagt tatcaacagc
i a v g a d e s v v k e a h r e v i n s

1441 agtactgaag gcgtgttact taatatcgac aaggacattc ggaagatcct gtccgggtat
s t e g l l l n i d k d i r k i l s g y

1501 atcgtggaga tcgaggatac cgagggcctg aaggaagtca ttaacgaccg ctatgatatg
i v e i e d t e g l k e v i n d r y d m

1561 ctgaacattt ccagcttacg acaggacggt aagacattta ttgactttaa aaagtataac
l n i s s l r q d g k t f i d f k k y n

1621 gacaagctac cccgtgtacat ttccaacca aattacaaag ttaatgtgta tgctgttaacc
d k l p l y i s n p n y k v n v y a v t

1681 aaggagaaca caatcatcaa tccaagcgag aacggcgata ccagcacaaa tggaatcaaa
k e n t i i n p s e n g d t s t n g i k

1741 aagatcctta tatttagtaa aaaaggctac gagatcggtt gaggatcc
k i l i f s k k g y e i g -

Figure 2A

1 gatatcgcca ccatggatgc aatgaagaga gggctctgct gtgtgctgct gctgtgtgga gcagctcttcg
m d a m k r g l c c v l l l c g a v f

71 ttctgccag cagcgctggg ccaactgtgc ccgacagaga caatgatgga atccctgata gtctagaggt
v s p s s a g p t v p d r d n d g i p d s l e

141 tgaggatgac acggtagatg tcaagaacaa aaggactttt ctctgcctt ggatctcaaa tatccatgag
v e g y t v d v k n k r t f l s p h t s e n i h e

211 aagaaggggc ttacaagta caagctctcc ccgagaagt ggtctaccg ttccgatcca tatagcgatt
k k g l t k y k s s p e k w s t a s d p y s d

281 tcgagaaggt cacagggcgg atcgataaaa atgtgtctcc agaggctaga caccocctgg tagcagccta
f e k v t g r i d k n v s p e a r h t s e n i h e

351 ccgattgta cagctggaca tggagaacat cattctaagc aaaaacgagg accagtccac aaaaacact
y p i v h v d m e n i i l s k n e d q s t q n t

421 gactccgaga ccgcaccac atctaaaaac accagtactt caaggaccca cacctctgaa gtgcacggca
d s e t x t i s k n t s t s r t h t s e n i h e

491 atcggaagt ccatgatcg gatattggtg gctccgtgtc agccggcttt agcaatagca actcctcgac
n a e v h a s d i g g s v s a g f s n s n s s

561 ggttgcatt gaccactcac tgtcattagc aggtgagagg acttggtgag aaactatggg tctgaatacc
t v a i d h s l s l a g e r t w a e t m g g l n t

631 gccgatacgg ccgggtctca cgcaaatatt cggtacgtca acacaggagc tgctctata tataacgtgc
a d t a r l n a n i r y v n t g t a p i y n v

701 tgctacgac aagtcttgc ctgggcaaaa atcagaccct cgcaaccatt aaggcaagg aaaaacagct
l p t t s l v l g k n q t l a t i k a k e n q

771 gagccagat ctccgcccta acaactatta tccatcaaaa aatttagccc ccatagccct gaacgccag
l s q i l a p n n y y p s k n l a p i a l n a q

841 gacgactttt cctctacccc cataactatg aattacaatc agttcttgga gctggaaaag acgaagcagc
d d f s s t p i t m n y n q f l e l e k t k q

911 tgagactaga caccgatcag gtgtatggaa acatagcgac atataacttt gagaacggcc gcgtgcgct
l r l d t d q v y g n i a t y n f e n g r n r

981 cgacactggg tcaactgggt ctgaagttct gccgcaaat caagagacaa ccgccagaat tatcttaaat
v d t g s n w s e v l p q i q e t t a r i i f n

1051 gggaaggact tgaacctgtt cgaacgtaga attgcccgcc tgaacccact tgatccactc gagacgacta
g k d l n l v e r r i a a v n p s d p l e t t

1121 aaccggatat gacactgaaa gaggtctgga agattgcctt cggattcaac gaacctaatg gcaatttgca
k p d m t i k e a l k i a f g f n e p n g n l

1191 gtatcagggg aaagadcat cagagtttga tttaaatct gatcagcaga ctcccaaaa tatcaaaaa
q y q g k d i t e f d f n f d q q t e n g r n i k n

1261 cagttggcag agctgaatgc caccaatctc tacacggttc tcgataaaa caaactaac gccaaatga
q l a e l n a t n i y t v l d k i k l n a k m

1331 acatattgat tcgagacaaa cgcttccact acgaccgcaa caatatagcc gtaggcgctg atgagctgt
n i l i r d k r f h y d n n i a v g a d e s

1401 cgtcaaggag gctcataggg aagttatcaa cagcagtact gaaggcgctg tacttaatat cgacaaggac
v v k e a h r e v i n s s t e g l l l n i d k d

1471 attcggaaga tctgtccgg gtatatcgtg gagatcgagg ataccgaggc cctgaaggaa gtcattaacg
i r k i l s g y i v e i e d t e g l k e v i n

Figure 2B

1541 accgctatga tatgctgaac atttccagct tacgacagga cggtaagaca tttattgact ttaaaaagta
d r y d m l n i s s l r q d g k t f i d f k k

1611 taacgacaag ctaccctgt acatttccaa cccaaattac aaagttaatg tgtatgctgt aaccaaggag
y n d k l p l y i s n p n y k v n v y a v t k e

1681 aacacaatca tcaatccaag cgagaacggc gataccagca caaatggaat caaaaagatc cttatattta
n t i i n p s e n g d t s t n g i k k i l i f

1751 gtaaaaaagg ctacgagatc ggttgaggat cc
s k k g y e i g -

Figure 3A

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1  gatatcgcca ccatggatgc aatgaagaga gggctctgct gtgtgtgtgt gctgtgtgga
    m d a m k r g l c c v l l l c g

61  gcagtccttcg ttctgcccag cgaagtgaag caagaaaatc gacttctgaa cgagagcgaa
    a v f v s p s e v k q e n r l l n e s e

121 agttcatcac agggctcttct cggatactac ttcatgtgact tgaatttcca agcaccaatg
    s s s q g l l g y y f s d l n f q a p m

181 gtggtgacta gtagcaccac cggcgatttg agcattccca gctctgagtt ggagaacatt
    v v t s s t t g d l s i p s s e l e n i

241 cccagcgaaa atcagtactt ccagtcctgct atctgggtccg gattcattaa ggttaaaaag
    p s e n q y f q s a i w s g f i k v k k

301 tccgacgaat atacatttgc tacctcggcg gataaccatg tgacaattgt ggtggacgac
    s d e y t f a t s a d n h v t m w v d d

361 caggaagtga tcaacaagcg ttcaaactct aataaaaatcc ggctcgagaa ggggaggctc
    q e v i n k a s n s n k i r l e k g r l

421 taccagatca aaattcagta ccagcgggaa aaccctacag aaaaaggact cgatttcaag
    y q i k i q y q r e n p t e k g l d f k

481 ctgtactgga cagatagcca aaacaagaaa gaagttatca gctcagacaa tctgcagtta
    l y w t d s q n k k e v i s s d n l q l

541 cccgagctca agcagaagag ttctaataca agcgcgtgggc caactgtgcc cgacagagac
    p e l k q k s s n t s a g p t v p d r d

601 aatgatggaa tcctgatag tctagaggtt gagggatata cggtagatgt caagaacaaa
    n d g i p d s l e v e g y t v d v k n k

661 aggaactttt tctgccttg gatctcaaat atccatgaga agaaggggct taccaagtac
    r t f l s p w i s n i h e k k g l t k y

721 aagtcctccc ccgagaagtg gtctaccgct tccgatccat atagcgattt cgagaaggtc
    k s s p e k w s t a s d p y s d f e k v

781 acaggccgga tcgataaaaa tgtgttccca gaggetagac acccctgggt agcagcctac
    t g r i d k n v s p e a r h p l v a a y

841 ccgattgtac acgtggacat ggagaacatc attctaagca aaaaacgagga ccagtcacca
    p i v h v d m e n i i l s k n e d q s t

901 caaaacactg actccgagac ccgcaccata tctaaaaaca ccagtaattc aaggaccac
    q n t d s e t r t i s k n t s t s r t h

961 acctctgaag tgcacggcaa tgcggaagtc catgcatcgt ttttctatat tgggtgctcc
    t s e v h g n a e v h a s f f d i g g s

1021 gtgtcagccg gcttttagca tagcaactcc tcgacggttg ccattgacca ctcactgtca
    v s a g f s n s n s s t v a i d h s l s

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Figure 3B

1081 ttagcaggtg agaggacttg ggctgaaact atgggtctga ataccgcga tacggcccg
 l a g e r t w a e t m g l n t a d t a r
 1141 ctcaacgcaa atattcggtg cgtcaacaca gggactgctc ctatatataa cgtgctgcct
 l n a n i r y v n t g t a p i y n v l p
 1201 acgacaagtc ttgtcctggg caaaaatcag accctcgcaa ccattaaggc aaaggaat
 t t s l v l g k n q t l a t i k a k e n
 1261 cagctgagcc agatctcgc cctaacaac tattatccat ccaaaaattt agcccccata
 q l s q i l l a p n n y y p s k n l a p i
 1321 gccctgaacg ccagaggacg ctttctctct acccccataa ctatgaatta caatcagttc
 a l n a q d d f s s t p i t m n y n q f
 1381 ctggagctgg aaaagacgaa gcagctgaga ctagacacg atcaggtgta tggaacata
 l e l e k t k q l r l d t d q v y g n i
 1441 gcgacatata actttgagaa cggcgcgctg cgcgtcgaca ctgggtcaaa ctgggtcgaa
 a t y n f e n g r v r v d t g s n w s e
 1501 gttctgcgcg aaatcaaga gacaaccgc agaattatct ttaattggaa ggacttgaac
 v l p q i q e t t a r i i f n g k d l n
 1561 cttgtcgaaac gtgaatttc cgcgtgaac ccagtgatc cactcgagac gactaaaccg
 l v e r r i a a v n p s d p l e t t k p
 1621 gatatgacac tgaagaggc tctgaagatt gccttcggat tcaacgaacc taatggcaat
 d m t l k e a l k i a f g f n e p n g n
 1681 ttgcagtatc aggggaaga catcacagag ttgtattca atttcgatca gcagacttcc
 l q y q g k d i t e f d f n f d q q t s
 1741 caaaatatca aaatcagtt ggcagagctg aatgccacca atatctacac ggttctcgat
 q n i k n q l a e l n a t n i y t v l d
 1801 aaaatcaaac ttaacgcaa gatgaacata ttgattcgag acaaacgctt ccactacgac
 k i k l n a k m n i l i r d k r f h y d
 1861 cgcaacaata tagccgtagc cgctgatgag tctgtcgtca aggaggctca tagggaagtt
 r n n i a v g a d e s v v k e a h r e v
 1921 atcaacagca gtactgaagg gctgttactt aatatcgaca aggacattcg gaagatcctg
 i n s s t e g l l l n i d k d i r k i l
 1981 tccgggtata tctgtgagat cgaggatacc gagggcctga aggaagtcac taacgaccgc
 s g y i v e i e d t e g l k e v i n d r
 2041 tatgatatgc tgaacatttc cagcttacga caggacgcta agacatttat tgactttaa
 y d m l n i s s l r q d g k t f i d f k
 2101 aagtataacg acaagctacc cctgtacatt tccaacccaa attacaagt taatgtgtat
 k y n d k l p l y i s n p n y k v n v y

Figure 3C

2161 gctgtaacca aggagaacac aatcatcaat ccaagcgaga acggcgatac cagcacaat
a v t k e n t i i n p s e n g d t s t n

2221 ggaatcaaaa agatccttat atttagtaaa aaaggctacg agatcggttg aggatcc
g i k k i l i f s k k g y e i g -

Figure 4A

```

1  gatatcgcca ccatggatgc aatgaagaga gggctctgct gtgtgctgct gctgtgtgga
    m d a m k r g l c c v l l l c g

61  gcagtcttcg ttctgccag cgccggcggg catggggacg ttggcatgca tgtgaaagaa
    a v f v s p s a g g h g d v g m h v k e

121 aaggagaaaa acaaggacga aaacaagcgt aaagacgaag aacgtaataa aacacaggag
    k e k n k d e n k r k d e e r n k t q e

181 gaacacttaa aggagatcat gaagcacata gtaaagattg aggtaaaagg cgaagaggct
    e h l k e i m k h i v k i e v k g e e a

241 gtaaagaagg aggcagcaga aaaactgttg gagaagggtc cttctgacgt cttagagatg
    v k k e a a e k l l e k v p s d v l e m

301 tataaggcca tcggcggtaa gatctatate gtggacggag acatcactaa acacatatct
    y k a i g g k i y i v d g d i t k h i s

361 ctcgaaagctc tctccgagga caagaaaaag attaaagaca tctacgggaa ggatgcctta
    l e a l s e d k k k k i k d i y g k d a l

421 ttgcacgagc actacgttta cgcaaaggag ggctatgagc ccgtgctcgt tattcagagt
    l h e h y v y a k e g y e p v l v i q s

481 agtgaggact acgtcgagaa taccgagaaa gctctgaatg tgtattacga gatcggaaag
    s e d y v e n t e k a l n v y y e i g k

541 attctgtccc gggacatcct gtccaaaaatc aaccagccat accagaaatt ccttgatgtt
    i l s r d i l s k i n q p y q k f l d v

601 cttaacacaa tcaaaaacgc gtcagatagc gacgggcagg atctctctgtt tacaatacaa
    l n t i k n a s d s d g q d l l f t n q

661 ctcaaggaaac accccactga ttccagcgtg gagttectcg agcagaattc taacgaagtc
    l k e h p t d f s v e f l e q n s n e v

721 caggagggtgt tcgccaaggc atttcggtac tatatcgaa cccagcatcg cgatgtgtctc
    q e v f a k a f a y y i e p q h r d v l

781 cagctgtacg ccccgagggc atttaactac atggacaaat tcaatgaaca ggagattaat
    q l y a p e a f n y m d k f n e q e i n

841 ctgtctctgg aggaactgaa agaccagagg atgtctcccc ggtatgaaaa gtgggaaaaag
    l s l e e l k d q r m l s r y e k w e k

901 atcaaacagc attaccagca ttgggtccgac tcctgtcag aagagggggc cggcctgttg
    i k q h y q h w s d s l s e e g r g l l

961 aaaaagtgtc agattcccat cgagcctaag aaagatgata taatacactc tctaagccag
    k k l q i p i e p k k d d i i h s l s q

1021 gaggagaagg aactcctgaa gcggatacaa atcgactcat ccgatttctc tagcacagaa
    e e k e l l k r i q i d s s d f l s t e

```


Figure 4B

1081 gagaaggagt ttctaaaaaa acttcagata gatattagag attcactgag cgaggaagag
e k e f l k k l q i d i r d s l s e e e

1141 aaggagctgc tcaaccgaat tcaagtcgat agttcgaacc cttgtgcaga aaaagagaag
k e l l n r i q v d s s n p l s e k e k

1201 gaattcctga aaaagttgaa gctcgacatc cagccgtacg atattaatca gcggtacaa
e f l k k l k l d i q p y d i n q r l q

1261 gacacggcg gtctgattga tagccccagc atcaaccttg acgtacggaa gcaatataag
d t g g l i d s p s i n l d v r k q y k

1321 cgcgacattc aaaatatoga cgccctatta catcaatcca taggtccac gctatacaat
r d i q n i d a l l h q s i g s t l y n

1381 aaaatctatc tatacgaaaa catgaatatt aacaatctca ccgctacact gggagcggac
k i y l y e n m n i n n l t a t l g a d

1441 ctggtcgata gtacagacaa cacaagata aacagaggtt ttttcaacga attcaaaaa
l v d s t d n t k i n r g i f n e f k k

1501 aactttaagt attcgatcag cagtaactat atgattgttg acatcaatga acggcccgca
n f k y s i s s n y m i v d i n e r p a

1561 ttgacaatg agaggttgaa gtggagaatt caactgagtc ctgatactag ggcgggctat
l d n e r l k w r i q l s p d t r a g y

1621 ctggagaacg ggaactgat cttacagcga aacatcgggc tggagatcaa ggatgtgcag
l e n g k l i l q r n i g l e i k d v q

1681 attatcaagc agagcgaaaa agaatacatt cgcacgcagc ccaaggtggt gcctaagtca
i i k q s e k e y i r i d a k v v p k s

1741 aagatcgata ccaagatcca ggaagctcag ctcaacatta accaggagtg gaataaagct
k i d t k i q e a q l n i n q e w n k a

1801 cttggtctgc caaataacac caaacttata acctttaatg tgcacaacag gtatgcctct
l g l p k y t k l i t f n v h n r y a s

1861 aatatcgctg agtcagcata cctgattctc aatgaatgga agaacaatat tcagtctgac
n i v e s a y l i l n e w k n n i q s d

1921 ctgatcaaga aggtcaacgaa ttatctgggt gacggaaatg gcagrtctgt gttccacgac
l i k k v t n y l v d g n g r f v f t d

1981 ataactttgc caaacattgc cgagcaatac actcatcagg atgaaattta cgagcaagtc
i t l p n i a e q y t h q d e i y e q v

2041 cactccaaag gtctgtatgt tccagagtc agatcgattc tgcctccatg tccatccaaa
h s k g l y v p e s r s i l l h g p s k

2101 ggggttgagc ttcgaaacga ttctgagggg tttatcgctg accttggagc cgctgtggat
g v e l r n d s e g f i a d f g a a v d

Figure 4C

2161 gactacgcgc gatacctgtt ggataagaat cagtctgac tcgtgacaaa tagcaaaaaa
d y a g y l l d k n q s d l v t n s k k

2221 ttcatagata ttttcaagga ggaagggagt aacctgactt cctatggccg cacgaacgag
f i d i f k e e g s n l t s y g r t n e

2281 gctgaatttt ttgcggaagc ctttagactt atgcacagca ccgaccatgc tgaaagggtg
a e f f a e a f r l m h s t d h a e r l

2341 aaggtgcaaa agaatgcccc taaaaccttc cagttcataa atgaccagat caagttcatc
k v q k n a p k t f q f i n d q i k f i

2401 atcaactctt gaggatcc
i n s -

Figure 5A

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1  gatatcgcca ccatggatgc aatgaagaga gggctctgct gtgtgctgct gctgtgtgga
    m d a m k r g l c c v l l l c g

61  gcagtccttcg ttctgccag cgccggcgag catggggagc ttggcatgca tgtgaaagaa
    a v f v s p s a g g h g d v g m h v k e

121 aaggagaaaa acaaggacga aaacaagcgt aaagacgaag aacgtaataa aacacaggag
    k e k n k d e n k r k d e e r n k t q e

181 gaacacttaa aggagatcat gaagcacata gtaaagattg aggtaaaagg cgaagaggct
    e h l k e i m k h i v k i e v k g e e a

241 gtaaaagaagg aggcagcaga aaaactgttg gagaagggtgc cttctgacgt cttagagatg
    v k k e a a e k l l e k v p s d v l e m

301 tataaggcca tcggcggtaa gatctatatc gtggacggag acatcactaa acacatatct
    y k a i g g k i y i v d g d i t k h i s

361 ctcaagctc tctccgagga caagaaaaag attaaagaca tctacgggaa ggatgcctta
    l e a l s e d k k k i k d i y g k d a l

421 ttgcacgagc actacgttta cgcaaggagg ggctatgagc ccgtgctcgt tattcagagt
    l h e h y v y a k e g y e p v l v i q s

481 agtggaggact acgtcgagaa taccgagaaa gctctgaatg tgtattacga gatcggaagg
    s e d y v e n t e k a l n v y y e i g k

541 attctgtccc gggacatcct gtccaaaatc aaccagccat accagaaatt ccttgatgtt
    i l s r d i l s k i n q p y q k f l d v

601 cttaacacaa tcaaaaacgc gtcagatagc gacgggcagg atctctctgt tacaatcaa
    l n t i k n a s d s d g q d l l f t n q

661 ctcaaggaa acceccactga ttccagcgtg gaggttctcg agcagaattc taacgaagtc
    l k e h p t d f s v e f l e q n s n e v

721 caggagggtgt tcgccaaggc atttgcgtac tatatcgaac ccgacgatcg cgatgtgctc
    q e v f a k a f a y y i e p q h r d v l

781 cagctgtacg ccccgaggcg atttaactac atggacaaat tcaatgaaca ggagattaat
    q l y a p e a f n y m d k f n e q e i n

841 ctgtctctcg aggaactgaa agaccagagg atgctctccc ggtatgaaaa gtgggaaaaag
    l s l e e l k d q r m l s r y e k w e k

901 atcaaacagc attaccagca ttggctcgac tccctgtcag aagaggggag cggcctgttg
    i k q h y q h w s d s l s e e g r g l l

961 aaaaagtgtc agattcccat cgagcctaag aaagatgata taatacactc tctaagccag
    k k l q i p i e p k k d d i i h s l s q

1021 gaggagaagg aactcctgaa gcggatacaa atcgactcat ccgatttctc tagcacagaa
    e e k e l l k r i q i d s s d f l s t e

```

Figure 5B

1081 gagaaggagt ttctaaaaaa acttcagata gatattagag attcactgag cgaggaagag
e k e f l k k l q i d i r d s l s e e e

1141 aaggagctgc tcaaccgaat tcaagtcgat agttcgaacc ccttgtcaga aaaagagaag
k e l l n r i q v d s s n p l s e k e k

1201 gaattcctga aaaagttgaa gctcgacatc cagccgtacg atattaatca gcggtacaa
e f l k k l k l d i q p y d i n q r l q

1261 gacacgggog gtctgattga tagccccagc atcaaccttg acgtacggaa gcaatataag
d t g g l i d s p s i n l d v r k q y k

1321 cgcgacattc aaaatatcga cgccctatta catcaatcca taggctccac gctatacaat
r d i q n i d a l l h q s i g s t l y n

1381 aaaatctatc tatacgaaaa catgaatatt aacaatctca ccgctacact gggagcggac
k i y l y e n m n i n n l t a t l g a d

1441 ctggctgata gtacagacaa cacaaagata aacagaggta ttttcaacga attcaaaaag
l v d s t d n t k i n r g i f n e f k k

1501 aactttaagt attcgatcag cagtaactat atgattgttg acatcaatga acggcccgca
n f k y s i s s n y m i v d i n e r p a

1561 ttagacaatg agaggttgaa gtggagaatt caactgagtc ctgatactag ggccggctat
l d n e r l k w r i q l s p d t r a g y

1621 ctggagaacg ggaaactgat cttacagcga aacatcgggc tggagatcaa ggatgtgcag
l e n g k l i l q r n i g l e i k d v q

1681 attatcaagc agagcgaaaa agaatacatt cgcacgcagc ccaaggtggt gtagggatcc
i i k q s e k e y i r i d a k v v -

Figure 6

```

1  gatatgccca ccatggatgc aatgaagaga gggctctgct gtgtgctgct gctgtgtgga
    m d a m k r g l c c v l l l c g

61  gcagtcttcg ttctgccag cgccggcggg catggggacg ttggcatgca tgtgaagaa
    a v f v s p s a g g h g d v g m h v k e

121 aaggagaaaa acaaggacga aaacaagcgt aaagacgaag aacgtaataa aacacaggag
    k e k n k d e n k r k d e e r n k t q e

181 gaacacttaa aggagatcat gaagcacata gtaaagattg aggtaaaagg cgaagaggct
    e h l k e i m k h i v k i e v k g e e a

241 gtaaagaagg aggcagcaga aaaactgttg gagaagggtc cttctgacgt cttagagatg
    v k k e a a e k l l e k v p s d v l e m

301 tataaggcca tcggcggtaa gatctatatc gtggacggag acatcactaa acacatatct
    y k a i g g k i y i v d g d i t k h i s

361 ctcgaaagtc tctccgagga caagaaaaag attaaagaca tctacgggaa ggatgcctta
    l e a l s e d k k k i k d i y g k d a l

421 ttgcacgagc actacgttta cgcaaaggag ggctatgagc ccgtgctcgt tattcagagt
    l h e h y v y a k e g y e p v l v i q s

481 agtgaggact acgtcgagaa taccgagaaa gctctgaatg tgtattacga gatcggaaag
    s e d y v e n t e k a l n v y y e i g k

541 attctgtccc gggacatcct gtccaaaate aaccagccat accagaaatt ccttgatgtt
    i l s r d i l s k i n q p y q k f l d v

601 cttaacacaa tcaaaaaacg gtcagatagc gacgggcagc atcttctgtt tacaaatcaa
    l n t i k n a s d s d g g d l l f t n q

661 ctcaaggaac accccactga tttcagcgtg gagttcctcg agcagaattc taacgaagtc
    l k e h p t d f s v e f l e q n s n e v

721 caggagggtg tcgccaaggc attttgagga tcc
    q e v f a k a f -

```

Figure 7A

```

1  gatatcgcca ccatggatgc aatgaagaga gggctctgct gtgtgtctgct gctgtgtgga
    m d a m k r g l c c v l l l c g
61  gcagttcttc ttctgccag cagcgtctgg ccaactgtgc ccgacagaga caatgatgga
    a v f v s p s s a g p t v p d r d n d g
121 atccctgata gtctagaggt tgagggatac acggttagatg tcaagaacaa aaggactttt
    i p d s l e v e g y t v d v k n k r t f
181 ctctcgccct ggatctcaaa tatccatgag aagaaggggc ttaccaagta caagtctctc
    l s p w i s n i h e k k g l t k y k s s
241 ccgagagaagt ggtctaccgc ttccgatcca tatagcgatt tcgagaaggt cacaggccgg
    p e k w s t a s d p y s d f e k v t g r
301 atcgataaac aggtgtctcc agaggctaga caccctctgg tagcagccta cccgattgta
    i d k q v s p e a r h p l v a a y p i v
361 cactgtggaca tggagaacat cattctaagc aaaaacgagg accagttccac acaaaacact
    h v d m e n i i l s k n e d q s t q n t
421 gactccgaga ccgcaccat atctaaacag accagtaactt caaggaccca cacctctgaa
    d s e t r t i s k q t s t s r t h t s e
481 gtgcacggca atcggaagt ccatgcctcg tttttcgata ttggtggctc cgtgtcagcc
    v h g n a e v h a s f f d i g g s v s a
541 ggcttttagca atagccagtc ctgcacggtt gccattgacc actcactgtc attagcaggt
    g f s n s q s s t v a i d h s l s l a g
601 gagaggactt gggctgaaac tatgggtctg aataccgccg atacggcccg gctcaacgca
    e r t w a e t m g l n t a d t a r l n a
661 aatattcggt acgtcaacac agggactgct cotatatata acgtgtctgcc tacgacaagt
    n i r y v n t g t a p i y n v l p t t s
721 ctgtctctgg gcaaacagca gaccctcgca accattaagg caaaggaaaa tcagctgagc
    l v l g k q q t l a t i k a k e n q l s
781 cagatctctg ccctcaacaa ctattatcca tcaaaaatt tagcccccatt agccctgaac
    q i l a p n n y y p s k n l a p i a l n
841 gccacggagc acttttctc taccocata actatgaatt acaatcagtt cctggagctg
    a q d d f s s t p i t m n y n q f l e l
901 gaaaagacga agcagctgag actagacacc gatcaggtgt atggaacat agcgacatat
    e k t k q l r l d t d q v y g n i a t y
961 aactttgaga acggccgcgt gcgcgtcgac actgggtcac agtgggtctga agttctgcgg
    n f e n g r v r v d t g s q w s e v l p
1021 caaattcaag agacaaccgc cagaattatc tttaatggga aggacttgaa cttgtcgaa
    q i q e t t a r i i f n g k d l n l v e

```

Figure 7B

1081 cgtagaattg ccgcctgca gccagtgat ccactcgaga cgactaaacc ggatatgaca
r r i a a v q p s d p l e t t k p d m t

1141 ctgaaagagg ctctgaagat tgccttcgga ttcaacgaac ctaatggcaa tttgcagtat
l k e a l k i a f g f n e p n g n l q y

1201 caggggaaag acatcacaga gtttgatttc aatttcgata agcagacttc ccaaaatate
q g k d i t e f d f n f d q q t s q n i

1261 aaaaatcagt tggcagagct gcaggccacc aatatctaca cggttctoga taaaatcaaa
k n q l a e l q a t n i y t v l d k i k

1321 cttaacgcca agatgaacat attgattcga gacaaacgct tccactcga cgcacaacat
l n a k m n i l i r d k r f h y d r n n

1381 atagccgtag gcgctgatga gtctgtcgtc aaggaggttc atagggaagt tatccagagc
i a v g a d e s v v k e a h r e v i q s

1441 agtactgaag ggctgttact taatatcgac aaggacattc ggaagatcct gtccgggtat
s t e g l l l l n i d k d i r k i l s g y

1501 atcgtggaga tcgaggatac cgaggggcctg aaggaagtca ttaacgacgc ctatgatatg
i v e i e d t e g l k e v i n d r y d m

1561 ctgcagattt ccagcttacg acaggacggt aagacattta ttgactttaa aaagtataac
l q i s s l r q d g k t f i d f k k y n

1621 gacaagctac ccctgtacat ttccaacca aattacaag ttaatgtgta tgctgtaacc
d k l p l y i s n p n y k v n v y a v t

1681 aaggagaaca caatcatcca gccaaagcag aacggcgata ccagcacaaa tggaatcaaa
k e n t i i q p s e n g d t s t n g i k

1741 aagatcctta tatttagtaa aaaaggctac gagatcggtt gaggatcc
k i l i f s k k g y e i g

Figure 8A

```

1  gatatcgcca ccattggatgc aatgaagaga gggctctgct gtgtgtgtgt gctgtgtgga
    m d a m k r g l c c v l l l c g
61  gcagtcttctg ttctgcccg cgccggcggg catggggagc ttggcatgca tgtgaaagaa
    a v f v s p s a g g h g d v g m h v k e
121 aaggagaaaa acaaggacga aaacaagcgt aaagacgaag aacgtcagaa aacacaggag
    k e k n k d e n k r k d e e r q k t q e
181 gaacacttaa aggagatcat gaagcacata gtaaagattg aggtaaaagg cgaagaggct
    e h l k e i m k h i v k i e v k g e e a
241 gtaaagaagg aggcagcaga aaaactgttg gagaagggtc cttctgacgt cttagagatg
    v k k e a a e k l l e k v p s d v l e m
301 tataaggcca tcggcggttaa gatctatctc gtggacggag acatcatcaa acacatatct
    y k a i g g k i y i v d g d i t k h i s
361 ctogaagctc tctccgagga caagaaaaag attaaagaca tctacgggaa ggatgcctta
    l e a l s e d k k k i k d i y g k d a l
421 ttgcacgagc actactgtta cgcaaaggag ggctatgagc ccgtgctcgt tattcagagt
    l h e h y v y a k e g y e p v l v i q s
481 agtggaggact acgtcgagaa taccgagaaa gctctgaatg tgtattacga gatcggaagg
    s e d y v e n t e k a l n v y y e i g k
541 attctgtccc gggacatcct gtccaaaatc aaccagccat accagaaatt ccttgatgtt
    i l s r d i l s k i n q p y q k f l d v
601 cttaacacaa tcaaacaggc gtcagatagc gacgggcagg atctctgttt tacaaaatcaa
    l n t i k q a s d s d g q d l l f t n q
661 ctcaaggaac acccactga ttccagcgtg gagttcctcg agcagaatcc taacgaagtc
    l k e h p t d f s v e f l e q n s n e v
721 caggaggtgt tcgccaaggc atttgcttac tatatcgaac cccagcatcg cgatgtgtctc
    q e v f a k a f a y y i e p q h r d v l
781 cagctgtacg ccccgagggc atttaactac atggacaaat tcaatgaaca ggagattcag
    q l y a p e a f n y m d k f n e q e i q
841 ctgtctctgg aggaactgaa agaccagagg atgctctccc ggtatgaaaa gtgggaaaaag
    l s l e e l k d q r m l s r y e k w e k
901 atcaaacagc attaccagca ttggtcgcag tcctgtcag aagaggggcg cggcctgttg
    i k q h y q h w s d s l s e e g g r g l l
961 aaaaagttgc agattcccat cgagcctaag aaagatgata taatacctc tctaagccag
    k k l q i p i e p k k d d i i h s l s q
1021 gaggagaagg aactcctgaa gcggatatac atcgactcat ccgatttctc tagcacagaa
    e e k e l l k r i q i d s s d f l s t e

```


Figure 8B

1081 gagaaggaggt ttctaaaaaa acttcagata gatattagag attcactgag cgaggaagag
e k e f l k k l q i d i r d s l s e e e

1141 aaggagctgc tcaaccgaat tcaagtcgat agttcgaacc ccttgtcaga aaaagagaag
k e l l n r i q v d s s n p l s e k e k

1201 gaattcctga aaaagttgaa gctcgacatc cagccgtacg atattaatca ggcgtacaa
e f l k k l k l d i q p y d i n q r l q

1261 gacaccggcg gtctgatgga tagcccccagc atcaaccttg acgtacggaa gcaatataag
d t g g l i d s p s i n l d v r k q y k

1321 cgcgacatgc aaaatatcga cgccctatta catcaatcca taggctccac gctatacaat
r d i q n i d a l l h q s i g s t l y n

1381 aaaatctatc tatacgaaaa catgaatatt aaccagctca ccgctacact gggagcggac
k i y l y e n m n i n q l t a t l g a d

1441 ctggtcgata gtacagacaa cacaagata aacagaggta ttttcaacga attcaaaaag
l v d s t d n t k i n r g i f n e f k k

1501 aactttaagt attcgatcag cagtaactat atgattgttg acatatga acgcccgcga
n f k y s i s s n y d i n e r p a

1561 ttagacaatg agagggtgaa gtggagaatt caactgagtc ctgatactag ggcgggctat
l d n e r l k w r i q l s p d t r a g y

1621 ctggagaacg ggaaactgat cttacagcga aacatcgggc tggagatcaa ggatgtgcag
l e n g k l i l q r n i g l e i k d v q

1681 attatcaagc agagcgaaaa agaatacatt cgcatcgacg ccaaggtggg gectaagtca
i i k q s e k e y i r i d a k v v p k s

1741 aagatcgata ccaagatcca ggaagctcag ctcaacatta accaggagtg gaataaagct
k i d t k i q e a q l n i n q e w n k a

1801 cttggctgcg caaaatacac caaacttate acctttaatg tgcacaacag gtatgcctct
l g l p k y t k l i t f n v h n r y a s

1861 aatatcgtag agtcagcata cctgattctc aatgaatgga agaacaatat tcagttctgac
n i v e s a y l i l n e w k n n i q s d

1921 ctgatcaaga aggtcacgaa ttatctggtg gacggaaatg gcagattcgt gttaccggac
l i k k v t n y l v d g n g r f v f t d

1981 ataactttgc caaacattgc cgagcaatac actcactcagg atgaaattta cgagcaagtc
i t l p n i a e q y t h q d e i y e q v

2041 cactccaaag gtctgtatgt tccagagtca agatcgatcc tgctccatgg tccatccaaa
h s k g l y v p e s r s i l l h g p s k

2101 ggggttgagc ttgcacagga ttctgagggg tttatcgctg actttggagc cgctgtggat
g v e l r q d s e g f i a d f g a a v d

Figure 8C

2161 gactacgccg gatacctggt ggataagcag cagctctgac tcgtgacaaa tagcaaaaaa
d y a g y l l d k q q s d l v t n s k k

2221 ttcatagata ttttcaagga ggaagggagt cagctgactt cctatggccg cacgaaacgag
f i d i f k e e g s q l t s y g r t n e

2281 gctgaatttt ttgcggaagc cttagactt atgcacagca ccgaccatgc tgaaagggtg
a e f f a e a f r l m h s t d h a e r l

2341 aagggtgcaaa agaatgcccc taaaaccttc cagttcataa atgaccagat caagttcatc
k v q k n a p k t f q f i n d q i k f i

2401 atcaactctt gaggatcc
i n s -

Figure 9A

[illegible]

Figure 9B

TPA-Human PA	1622	acaagctacccctgtacatttccaacccaaattacaaagttaatgtgtatgctgtaaccaaggagaaacac
B.a.- PA	2135	.t..at....gt.a..t..aagt..t..c.....t..g..a.....a.....t..t..a..a.....
TPA-Human PA	1692	aatcatcaatccaagcgagaaacggcgataccagcacaaatggaatcaaaaagatccttatatttagtaaa
B.a.- PA	2205	t..t..t.....t..t.....t..g.....t..t..c..c..g.....g..a..tt.a..c....tc....
TPA-Human PA	1762	aaaggctacgagatcggttga
B.a.- PA	2275	.....t.....a..a..a..

Figure 10B

TPA-human fu	1384	gagctggaanaagacgaagcagctgagactagacaccgatcaggtgtatggaaacatagcg
B.a.- PA	1408	...t.a...a...a...at.a...t...t...g...a...a...g...t...a
TPA-human fu	1444	acataaaactttgagaacggcgcgctgcgcgtcgacactgggtcaaactggctgaagtt
B.a.- PA	1468	...C...t...t...a...t...aa...a...g...g...t...a...C...g...ag...g
TPA-human fu	1504	ctgccgcaaattcaagagacaaccgccagaattatctttaatgggaaggacttgaacctt
B.a.- PA	1528	t...a...t...t...a...t...ac.t...c...t...t...a...a...t...a...t...g
TPA-human fu	1564	gtcgaacgtagaattgcgcgcgtgaacccagtgatccactcgagacgactaaaccggat
B.a.- PA	1588	...a...a...gc.g...a...g...g...t...t...t...t...a...a...t...t...
TPA-human fu	1624	atgacactgaaagaggtctctgaagattgccttcggattccaacgaacctaatggcaattg
B.a.- PA	1648	...t...t...a...a...C...t...a...a...a...t...t...t...g...a...a...C...a
TPA-human fu	1684	cagtatcaggggaagacatcacagagtttgatttcaatttcgatcagcagactcccaa
B.a.- PA	1708	...a...a...a...t...t...t...a...a...t...t...t...t...a...a...a...t...
TPA-human fu	1744	aatatcaaaatcagttggcagagctgaatgccaccaatatctacacggttctcgtataaa
B.a.- PA	1768	...t...t...g...t...t...a...g...at.a...C...a...t...t...C...a...t...t...at.a...
TPA-human fu	1804	atcaaaacttaacgccaagatgaacatatgtgattcgagacaacgcttccactacgaccgc
B.a.- PA	1828	...t...t...a...t...a...a...t...t...t...a...aa...t...t...t...t...t...ta.a
TPA-human fu	1864	aacaatatagccgtagggcgtgatgagctctgtcgtcaaggaggctcatagggaagttatc
B.a.- PA	1888	...t...C...t...a...t...g...g...t...t...a...a...t...t...t...t...a...a...t...
TPA-human fu	1924	aacagcagtactgaaggcgtgttacttaatatcgacaaggacattcggagaagatcctgtcc
B.a.- PA	1948	...ttcgtca...a...g...at.a...gt.a...t...t...t...t...aa.a...a...at.a...a
TPA-human fu	1984	gggtatatcgtggagatcgaggataccgagggcctgaaggagtcattaaacgaccgctat
B.a.- PA	2008	...t...t...t...t...a...a...t...t...a...g...t...t...a...t...t...t...a...a...
TPA-human fu	2044	gatatgctgaacatttcagcttacgacaggacggtaagacatttattgactttaaaaag
B.a.- PA	2068	...t...t...t...t...t...t...g...a...t...t...a...a...t...t...t...t...a...
TPA-human fu	2104	tataacgacaagctaccctgtacatttccaacccaattacaagtttaattgtgtatgct
B.a.- PA	2128	...t...t...t...at...t...gt.a...t...aagt...t...C...t...t...g...a...a...t...
TPA-human fu	2164	gtaaccaaggagaaacacaatcatcaatccaagcgagaacggcgataccagcacaaatgga
B.a.- PA	2188	...t...t...a...a...t...t...t...t...t...t...t...g...t...t...t...C...C...g
TPA-human fu	2224	atcaaaaagatccttatatttagtaaaaaaggctcagagatcgggttgaggatcc
B.a.- PA	2248	...t...g...a...tt.a...C...t...C...t...t...t...a...a...a...-----

Figure 11A

[illegible]

Figure 11B

TPA-Human	LF	1402	atgaattattaacaatctcaccgctacactgggagcggacgtggtcgatagtcacagacaac
B.a.-	LF	1420	.....C..T..C..T..a..a..C..a..t.....tt.a..t...tcc..t..t..t
TPA-Human	LF	1462	acaagataaacagaggtattttcaacgaattcaaaaagaactttaagtattcgatcagc
B.a.-	LF	1480	...t..a..t..t.....t.....t.....t.....a..t..t..a..a..agt..ttct
TPA-Human	LF	1522	agtaactatatgattgttgacatcaatgaacggcccgcatagacaatgagaggttgaa
B.a.-	LF	1540	.....t..a.....a.....t.....t.....t.....C..t.....a
TPA-Human	LF	1582	tggagaattcaactgagtcctgatactaggcgccgctatctggagaacgggaaactgatc
B.a.-	LF	1600	.....C..t..t..atCa..a.....C..a..a..a..t..a..a..t..a..a..g..t..a
TPA-Human	LF	1642	ttacagcgaacacatcgggctggagatcaaggatgtgcagattatcaagcagagcgaaaa
B.a.-	LF	1660	.....aa.....t.....t.....a.....a..a..a..t.....atc.....
TPA-Human	LF	1702	gaatacattcgcatcgacgccaaaggtgggtgcctaagtcaaagatcgataccaagatccag
B.a.-	LF	1720	.....t..aa.g..t..t..t..g..a..a.....agt..a..a.....a..t..t..a
TPA-Human	LF	1762	gaagctcagctcaacattaaccaggagtggaataaagctcttggtctgccaaaatacacc
B.a.-	LF	1780	.....a..t..a..t..a..t.....a.....t.....at..a..gt..a.....t..a
TPA-Human	LF	1822	aaacttatcacctttaatgtgcacacaggtatgcctctaataatcgctcagatcagcatac
B.a.-	LF	1840	..g.....t..a..C..C.....t..t..a.....a..C.....t..a..aagt..t..t
TPA-Human	LF	1882	ctgattctcaatgaatggaagaacaataattcagtcctgacatgatcaagaaggtcacgaat
B.a.-	LF	1900	t..a..at.g.....a..t.....aag...t..t..t..a..a.....a..a..
TPA-Human	LF	1942	tatctggtggacggaaatggcagatctcgtgttcaccgcataaactttgccaaacattgcc
B.a.-	LF	1960	..ct..a..t..t..t.....a.....t..t..t.....t..t...C..C..t..t..a..t
TPA-Human	LF	2002	gagcaatacactcatcaggatgaaatttacgagcaagtcacccaaggtctgtatggt
B.a.-	LF	2020	..a.....t..a.....a.....g..a..t.....t..t..t..a.....gt..a.....
TPA-Human	LF	2062	ccagagtcgaagatcgattctgtccatgggtccatccaaaggggttgagcttcgaacgat
B.a.-	LF	2080	.....a..cc..t..t..at..a.....a..t..a.....t..a..at..aa.g..t...
TPA-Human	LF	2122	tctgagggattttatcgctgactttggagccgctgtggatgactacgcggatacctggtg
B.a.-	LF	2140	ag.....t.....acac..a.....cat.....t.....t..t..t.....t..a..a
TPA-Human	LF	2182	gataagaatcagtcgtatctcgtgacaaatagcaaaaaattcatagatattttcaaggag
B.a.-	LF	2200	.....C..a.....t..a..t.....tct.....t.....t.....t.....a
TPA-Human	LF	2242	gaaggagtaacctgacttctatgcccgcacgaacgaggtgaatttttgcggaagcc
B.a.-	LF	2260	.....tt..a.....g.....ga..a..a..t..a..g.....t.....t.....t.....
TPA-Human	LF	2302	tttagacttatgcacagaccgaccatgctgaaaggttgaaaggtgcaaaagaatgccctt
B.a.-	LF	2320	.....gt..a.....ttct..g.....t.....C..t..a..a..t.....a.....t..g
TPA-Human	LF	2362	aaaaccttccagttcataaatgaccagatcaagttcatcatcaactcttgaggatcc
B.a.-	LF	2380	.....t.....a..t..t..t..C..t.....t.....t.....t..t.....a..a-----

Figure 12

TPA-Human PA	1	mdamkrglccvlllcgavfvpssagptvpdrndngipdslevegtydvknkrtflspw
Sugar minus	1	.....
TPA-Human PA	61	isnihekkgltkyksespekwtasdpysdfekvtgridknvspearhplvaaypivhvm
Sugar minus	61	.....q.....
TPA-Human PA	121	eniilsknedqstqntdsetrtiskntstsrthtsevhgnaevhasffdiggsvsagfn
Sugar minus	121	.....q.....
TPA-Human PA	181	snsstvaidhslslagertwaetmgIntadtarlmaniryvntgtapiynvlpttslvlg
Sugar minus	181	.q.....
TPA-Human PA	241	knqtlatikakenqlsqilapnnyypsknlapialnaqddfstpitmynqflelektk
Sugar minus	241	.q.....
TPA-Human PA	301	qlrltdqvygniatiynfengrivrvtgsnwsevlpqiqettariifngkdlnlverria
Sugar minus	301	.....q.....
TPA-Human PA	361	avnpsdplettkpdm1kealkiafgfnepngnlqyggkditfedfnfdqqtsgniknl
Sugar minus	361	..q.....
TPA-Human PA	421	aelnatniyvtldkiklnakmnlirdkrfhydrnniavgadesvvkeahrevinssteg
Sugar minus	421	...q.....q.....
TPA-Human PA	481	lllnidkdirkilsgyiveiedteglkevindrydmnisslrqdgktfidfkyndklp
Sugar minus	481	.....q.....
TPA-Human PA	541	lyisnpykvnyavtkentiinpsengdtstngikkilifskkgyeig
Sugar minus	541	.....q.....

Figure 13

TPA-Human LF	1	mdamkrglccvlllcgavfvspsagghgdvgmhvkekeknkdenkrkdeernktqeehlk
Sugar minus	1	.....q.....
TPA-Human LF	61	eimkhivkievkgeeavkkeaekllekvpdsdvlemykaigggkiyivdgditkhisleal
Sugar minus	61	.....
TPA-Human LF	121	sedkkkikdiygkdallhehyvyakegyepvlviqssedyventekalnvyeyigkilsr
Sugar minus	121	.....
TPA-Human LF	181	dilskinqpyqkfldvltiknasdsdgqdllftnqlkehptdfsvefleqnsnevgevf
Sugar minus	181	.....q.....
TPA-Human LF	241	akafayyiepqhrdvlqlyapeafnymdkfneqeinlsleelkdqrmrlsryekwekikqh
Sugar minus	241	.....q.....
TPA-Human LF	301	yqhwsdsfseegrgllklqipiepkddihsfseeeekellkriqidssdfsteekef
Sugar minus	301	.....
TPA-Human LF	361	lklqidirdslseeeekellnriqvdsnnplsekekeflklklldiqpydinqrldtgg
Sugar minus	361	.....
TPA-Human LF	421	lidspsinldvrkqykrdiqnidallhqsigsstlynkiylenmminnltatlgadlvds
Sugar minus	421	.....q.....
TPA-Human LF	481	tdntkinrgifnefkknfkyssismyvdivnerpaldnerlkwriqlspdragyleng
Sugar minus	481	.....
TPA-Human LF	541	klilqrnigleikdvqiikqsekeyiridakvvpkskidtkiqaqlningewnkalgp
Sugar minus	541	.....
TPA-Human LF	601	kytklitfnvhnryasnivesaylilnewknniqsdlikkvtnylvdgngfrfvftditlp
Sugar minus	601	.....
TPA-Human LF	661	niaeqythqdeiyeqvhskglyvpesrsillhgpskgvelrindsegfiadfgaavddyag
Sugar minus	661	.....q.....
TPA-Human LF	721	ylldknqsdslvtnskffidifkeegsnltsygrtneaeffaeafrlmhstdhaerlkvqk
Sugar minus	721	.....q.....q.....
TPA-Human LF	781	napktfqfindqikfiins
Sugar minus	781	.....

Figure 14

1 gataatcgcca ccatggatgc aatgaagaga gggctctgct gtgtgtgctgt gctgtgtgga
m d a m k r g l c c v l l l c g

61 gcagttcttcg tttcgcccag cgccggcggg catggggacg ttggcatgca tgtgaaagaa
a v f v s p s a g g h g d v g m h v k e

121 aaggagaaaa acaaggacga aaacaagcgt aaagacgaag aacgtaataa aacacaggag
k e k n k d e n k r k d e e r n k t q e

181 gaacacttaa aggatcat gaagcacata gtaaagattg aggtaaaagg cgaagaggct
e h l k e i m k h i v k i e v k g e e a

241 gtaaagaagg aggcagcaga aaaactgttg gagaagggtc cttctgacgt cttagagatg
v k k e a a e k l l e k v p s d v l e m

301 tataaggcca tcggcggtaa gatctatatc gtggacggag acatcactaa acacatatct
y k a i g g k i y i v d g d i t k h i s

361 ctcgaaagtc tctccgagga caagaaaaag attaaagaca tctacgggaa ggatgcctta
l e a l s e d k k k i k d i y g k d a l

421 ttgcacgagc actacgttta cgcaaaggag ggctatgagc ccgtgctcgt tattcagagt
l h e h y v y a k e g y e p v l v i q s

481 agtgaggact acgtcgagaa taccgagaaa gctctgaatg tgtattacga gatcggaaag
s e d y v e n t e k a l n v y y e i g k

541 attctgtccc gggacatcct gtccaaaatc aaccagccat accagaaatt ccttgatgtt
i l s r d i l s k i n q p y q k f l d v

601 cttaacacaa tcaaaaacgc gtcagatagc gacgggcagg atcttctgtt tacaatacaa
l n t i k n a s d s d g q d l l f t n q

661 ctcaaggaaac accccactga ttgcagcgtg gagttcctcg agcagaattc taacgaagtc
l k e h p t d f s v e f l e q n s n e v

721 caggagggtgt tcgccaaggc atttgcgtac tatatcgaac ccagcatcg cgatgtgctc
q e v f a k a f a y y i e p q h r d v l

781 cagctgtacg ccccgagggc atttaactac atggacaaat tcaatgaaca ggagattaat
q l y a p e a f n y m d k f n e q e i n

841 ctgtctctgg aggaactgaa agaccagtga ggatcc
l s l e e l k d q -

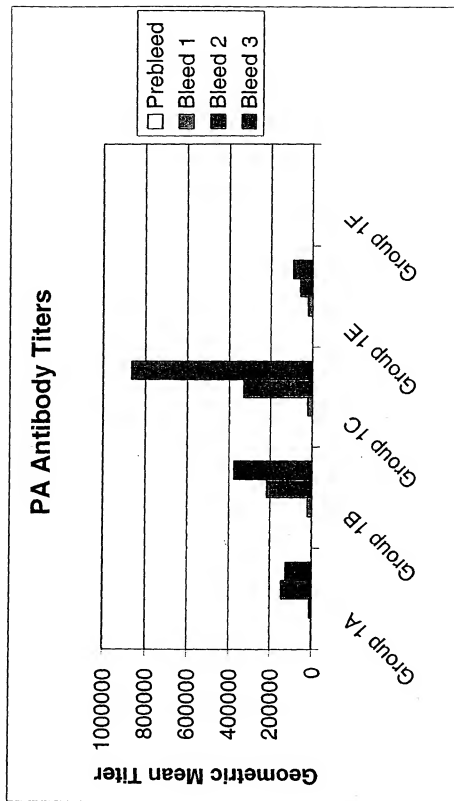


FIG. 15A

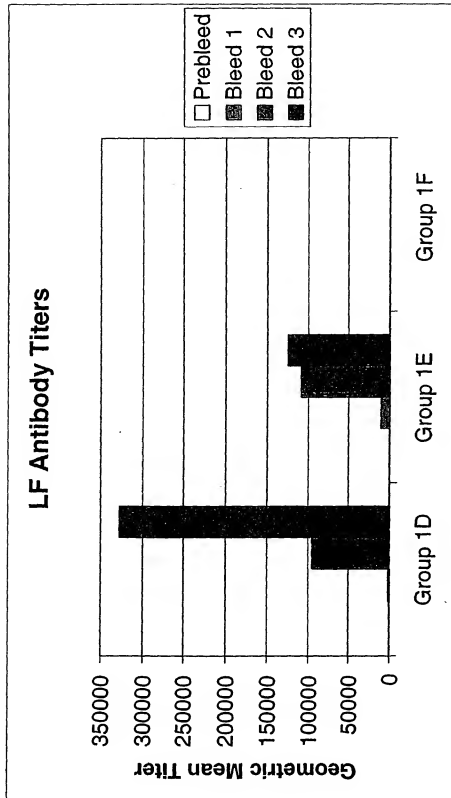


FIG. 15B

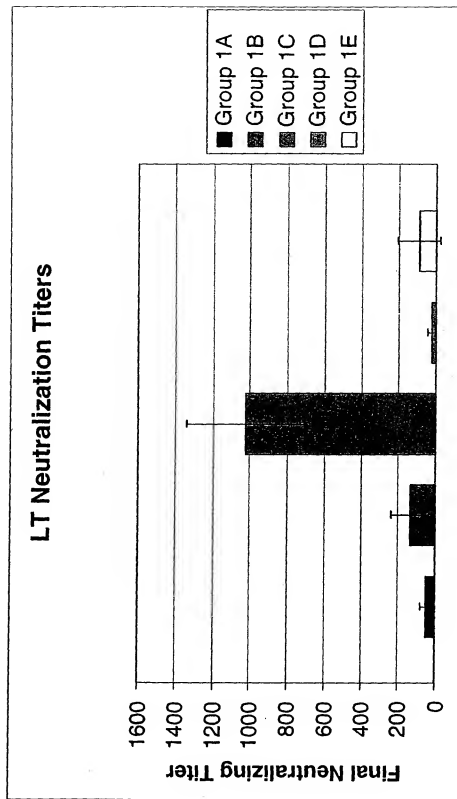


FIG. 15C

PA Antibody Titers

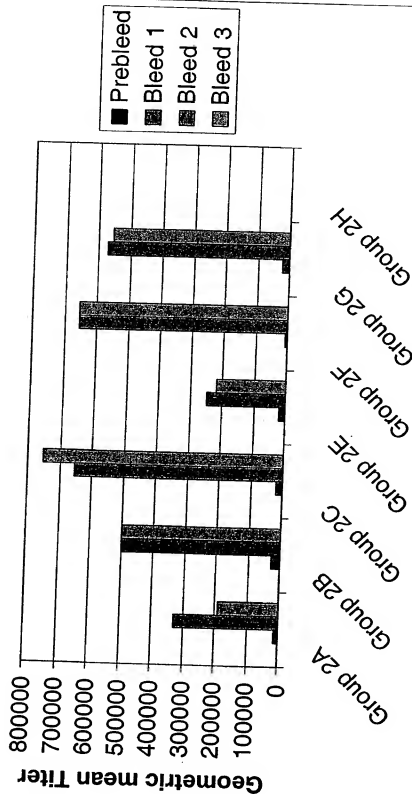


FIG. 16A

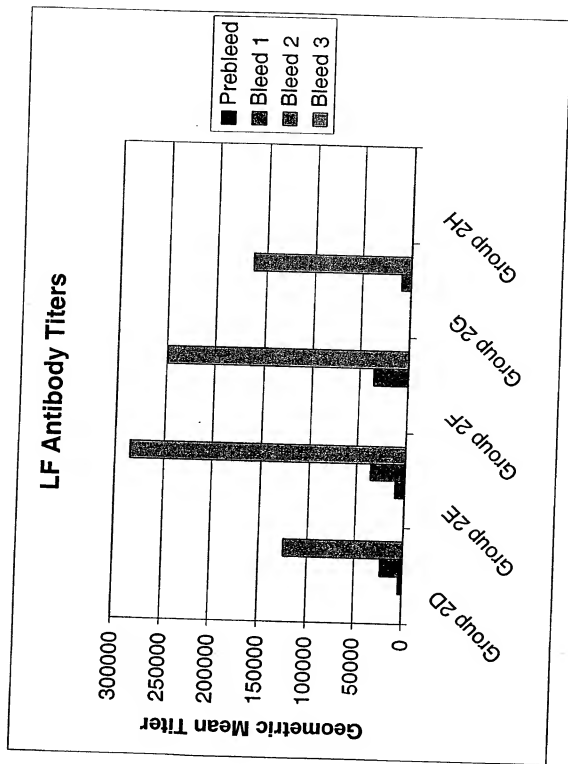


FIG. 16B

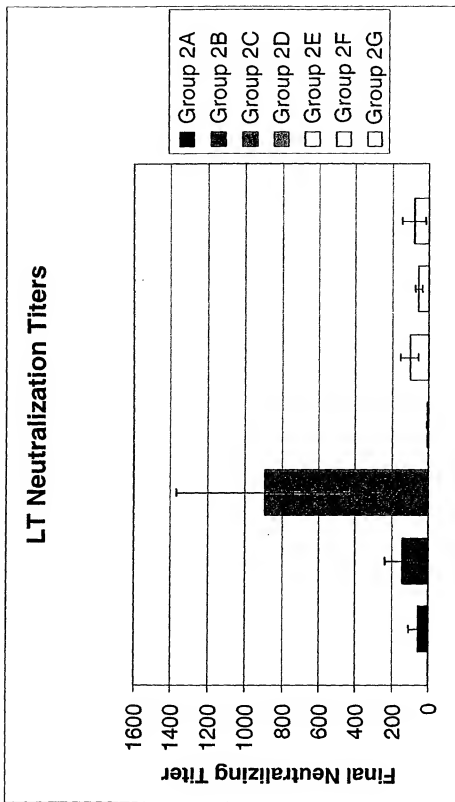


FIG. 16C

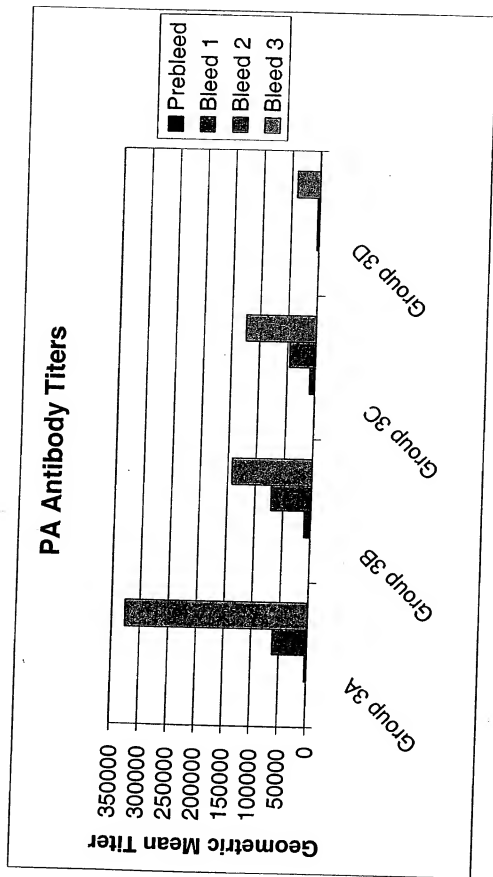


FIG. 17A

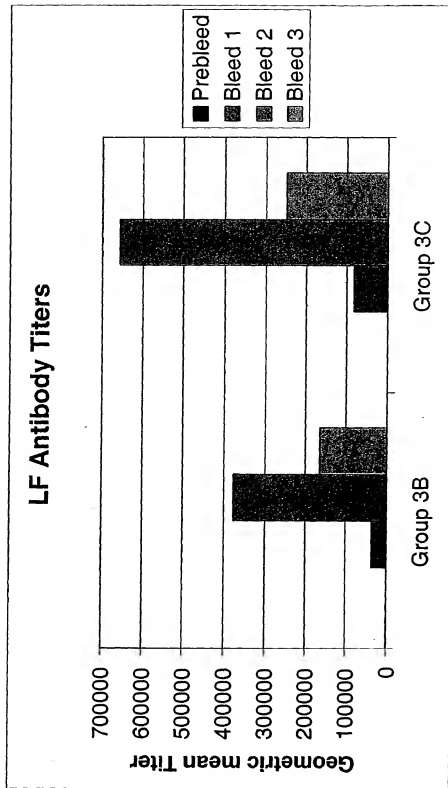


FIG. 17B

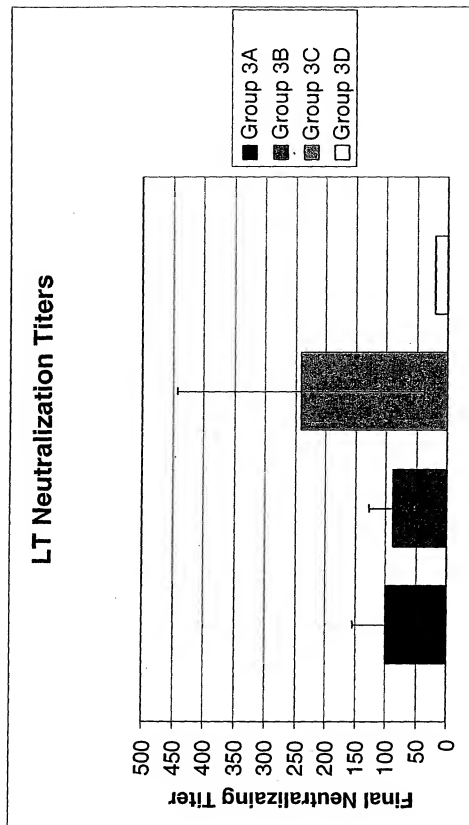


FIG. 17C

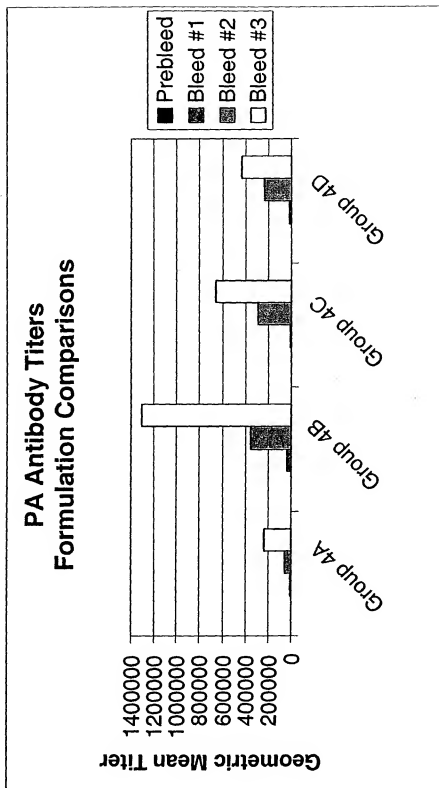


FIG. 18A

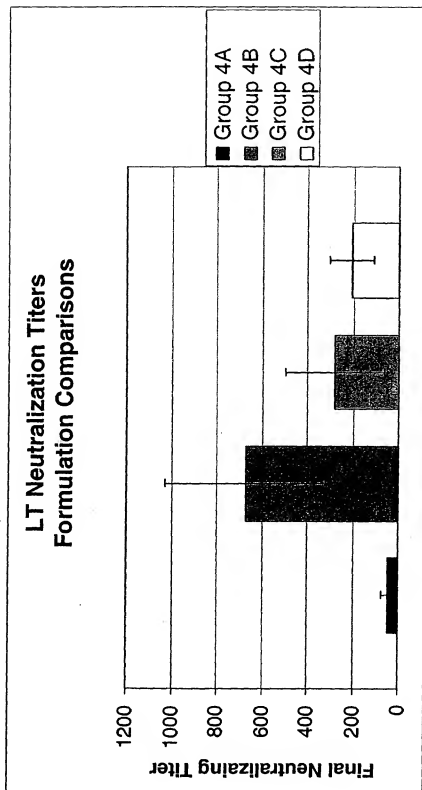


FIG. 18B

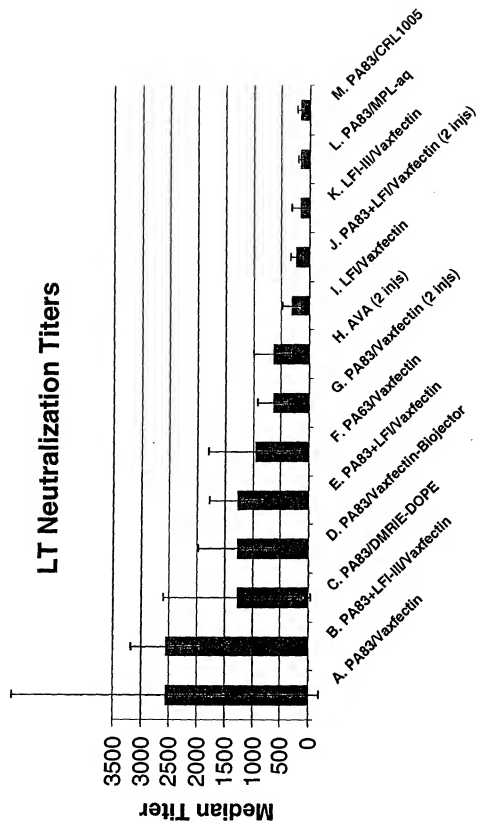


FIG. 19

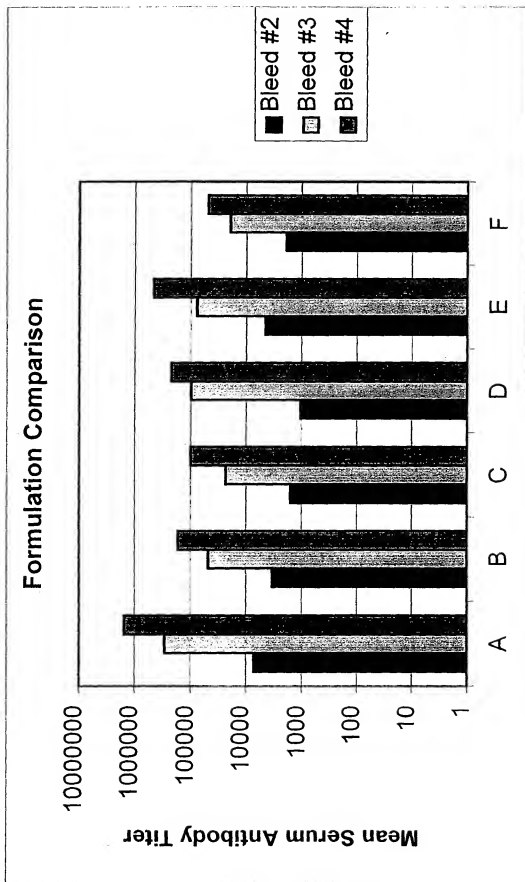


FIGURE 20

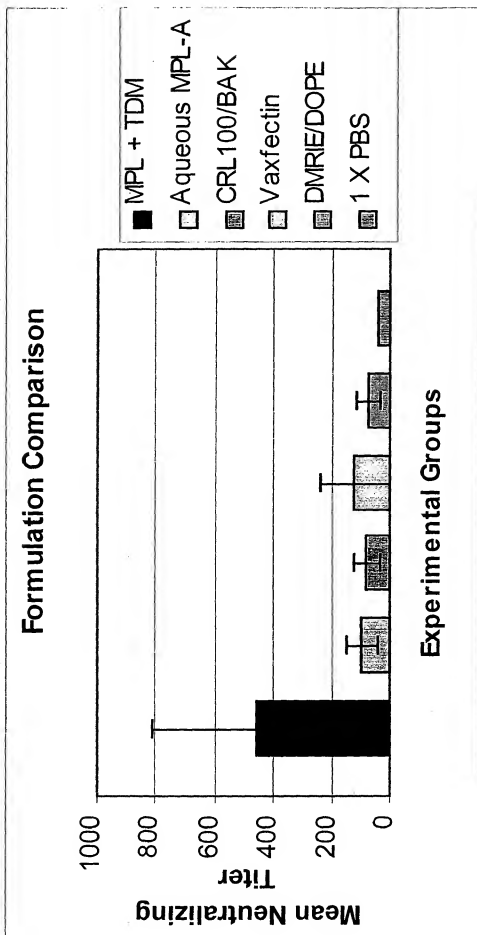


FIGURE 21